

## REMARKS

Claims 44, 45, 46, 47, 51, 53, 54, 55, 70 and 71 have been amended to more clearly define Applicant's invention. Claim 52 has been canceled. Claims 44-51 and 53-72 are submitted for reconsideration. Claims 55-69 were formerly allowed, claims 45-52, 54, 71 and 72 were formerly objected to or as depending from rejected claims.

Applicant has carefully studied the primary reference Rando (EP 0 327 224) and is of the opinion that it does not anticipate Applicant's invention. This reference shows an optical fiber member 19 mounted on a cantilevered reed member 14. The member 14 is moved to deflect the fiber whereby its end does not coincide with the end of the fiber 17. A fiber optic reed switch is disclosed. The second primary reference Sano et al (EP 0 379 732) shows a light conducting member 5, a shutter 8 which opens and closes the light path between corner-reflecting surfaces. A light reflecting surface on the tip of the shutter 8 can be selectively positioned to alter the path of a beam injected through optical fiber 3 to fibers 4 or 12. In Rando it is the primary optical path in the fiber 19 which is redirected by the reed 14. In contrast Applicant's optical beam steering apparatus includes a beam steering assembly in addition to and separate from the primary optical path. That is, the light traveling in the fiber or waveguide 13 is received by a steerable element and is directed to selected locations.

Claim 44 calls for a primary optical path for accommodating the passage of a light beam aligned in a predetermined orientation with respect to the upper cavity. This would in essence correspond to the optical fiber 19 in the Rando reference. However, claim 44 further calls for a beam steering assembly including a steerable element hingedly secured to the substrate body adjacent the upper cavity for receiving and reflecting the light beam to controllably direct the light beam. Clearly Rando does not suggest or disclose a steerable element hingedly secured to the body and which reflects the light beam.

Claims 45, 46, 47, 51 and 52 were rejected on the basis of the Sano et al. reference. Clearly then the Examiner was of the opinion that these claims distinguished over the Rando reference. Claim 45 distinguishes over Rando in that the beam steering element receives the light beam and controllably alters the optical path of the light beam in at least one direction that is emanating from the primary optical path or propagating towards the primary optical path. Clearly Sano et al does not disclose a beam steering element which can selectively return the optical beam through the optical fiber 3. Claim 46 calls for the steering element mounted on the

substrate body adjacent the cavity and for receiving light from the waveguide and controllably directing a light beam. Sano et al, if one can consider the reflective surface 11 on the element 8 as being a steering assembly, does not show the steering assembly mounted on the substrate body 5 and for controllably directing the light beam. The reflector at most reflects the light beam in a predetermined direction and not in a controllable direction.

Claim 47 as amended clearly distinguishes over the Sano reference in calling for the steerable element being hingedly secured to the substrate. Claim 51 distinguishes in that it calls for controllably directing the light beam. Sano does not “controllably” direct the light beam. Claim 52 has been canceled since it was a substantial repetition of claim 51.

The remainder of the claims all stand rejected as being anticipated by the Rando reference. Claim 53 clearly distinguishes from the Rando reference in that the beam steering assembly is hingedly secured to the substrate body and receives and reflects the light beam to controllably direct the light beam. Rando at most steers the input optical fiber and associated light beam. Rando does not disclose a beam steering element which receives and reflects the beam. Claim 54 as amended distinguishes in that Rando does not disclose a steering assembly positioned adjacent the cavity for receiving and reflecting the light beam. Claim 55 clearly distinguishes in calling for the hinged beam steering assembly including a reflecting surface. Applicant is unable to find in Rando the various elements called for in claim 56. Claims 57 and 58 are dependent upon claim 56 and deemed allowable for the same reason. Claim 59 calls for a frame with a mirror nested in a set of hinges to provide axial rotation and other elements not found in the reference. Claims 60-62 are deemed allowable for the same reason as claim 59. The elements called for in claim 63 are not found in the references. The elements of claims 64, 65, 66-70 are not found in the primary reference. It is surprising that the allowance of claims 56-69 was withdrawn on the basis of the Rando reference which does not disclose the elements of these claims.

Claim 70 distinguishes in calling for a hinged beam steering element.

Claim 71 distinguishes from Rando not only with regard to the basis of construction but also in that the steerable element receives and controllably directs the light beam through the upper cavity, which is not disclosed or suggested in Rando. Claim 71 is likewise not anticipated by Rando.

In view of the foregoing it is submitted that the application is now in condition for allowance and such is respectfully requested.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication or credit any overpayment to our Deposit Account No. 50-2319 (Order No. A-62591-3/AJT (468330-609)).

Respectfully submitted,

  
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